

## FOREST ROAD EXCISE TAX SUMMARY SHEET

Region: Southeast

Timber Sale Name: Dawson

Application Number: 78785

### Excise Tax Applicable Activities

Construction: 0 linear feet

*Road to be constructed (optional and required) but not abandoned*

Reconstruction: 250 linear feet

*Road to be reconstructed (optional and required) but not abandoned*

Abandonment: 3530 linear feet

*Abandonment of existing roads not reconstructed under the contract*

Deactivation: 0 linear feet

*Road to be made undrivable but not officially abandoned*

Pre-Haul Maintenance: 4440 linear feet

*Existing road to receive maintenance work (specifically required by the contract) prior to haul*

### Excise Tax Exempt Activities

Temporary Optional Construction: 0 linear feet

*Optional roads to be constructed and then abandoned*

Temporary Optional Reconstruction: 0 linear feet

*Optional roads to be reconstructed and then abandoned*

New Abandonment: 0 linear feet

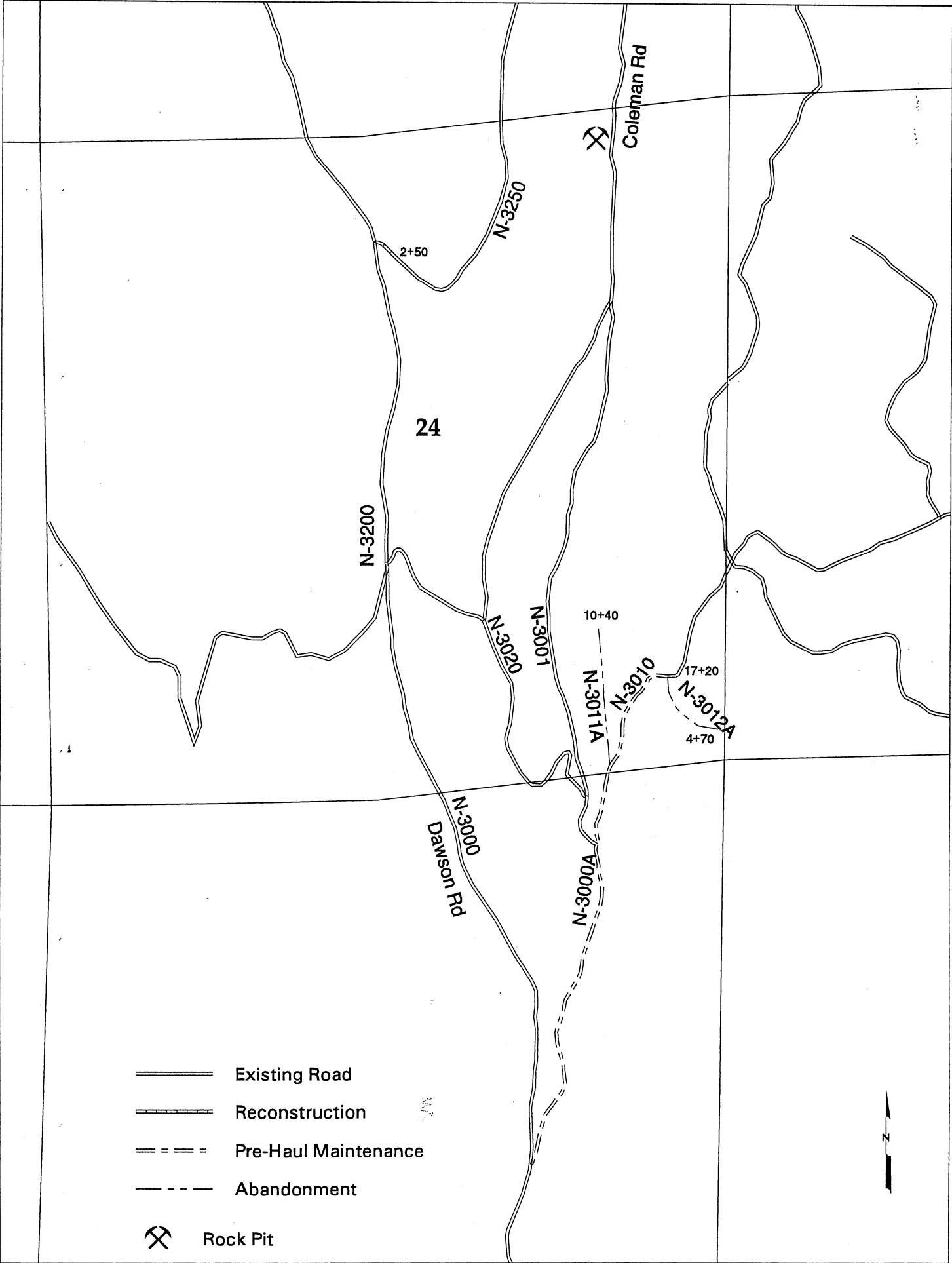
*Abandonment of roads constructed or reconstructed under the contract*

ROAD PLAN MAP

SALE NAME: Dawson  
AGREEMENT NO.: 75785  
GRANT: Indemnity

REGION: Southeast  
COUNTY: Kittitas

TOWNSHIP 19 NORTH RANGE 19 EAST, W.M.



STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES  
DOUG SUTHERLAND, COMMISSIONER OF PUBLIC LANDS

DAWSON TIMBER SALE ROAD PLAN  
SECTION 24, TOWNSHIP 19 NORTH, RANGE 19 EAST, W.M.  
KITITITAS COUNTY

AGREEMENT NO.: 75785

DATE: APRIL 30, 2004

SECTION 0 - SCOPE OF PROJECT

This project includes, but is not limited to reconstruction including:

- clearing existing excavation and embankment slopes;
- right of way debris disposal;
- realigning road segments;
- replacing existing culvert;
- installing additional culvert;
- grading and shaping existing road surface and turnouts;
- acquisition and application of grass seed and fertilizer.

This project includes, but is not limited to pre-haul maintenance including:

- brushing right of way where posted;
- right of way debris disposal;
- removal of undrivable water bars;
- cleaning ditches;
- constructing water bars;
- cleaning culvert inlets and outlets;
- application of pit run rock;
- grading and shaping existing road surface and turnouts;
- road deactivation;
- acquisition and application of grass seed and fertilizer.

This project also includes but is not limited to light and medium abandonment including:

- culvert removal;
- scattering of slash on road surfaces;
- sidecast recovery;
- filling in of ditches;
- ripping of road surface;
- construction of undrivable waterbars;
- acquisition and application of grass seed and fertilizer.

SECTION 1: GENERAL CLAUSES

SECTION 1.1: GENERAL: GENERAL CLAUSES

1.1-1

Clauses in this plan apply to all reconstruction, or pre-haul maintenance including landings unless otherwise noted.

1.1-2

Reconstruction or pre-haul maintenance of the following roads is required. All roads shall be reconstructed or pre-haul maintained on the State's location and in accordance with this Road Plan.

<u>Road</u>	<u>Station</u>	<u>Type</u>
N-3000A	0+00 to 27+20	Pre-Haul Maintenance
N-3001	0+00 to 11+00	Purchaser Maintenance
N-3010	0+00 to 17+20	Pre-Haul Maintenance
N-3200	0+00 to 25+50	Purchaser Maintenance
N-3250	0+00 to 2+50	Reconstruction
N-3250	2+50 to 7+90	Purchaser Maintenance

1.1-3

Abandonment of the following roads is required. All roads shall be abandoned in accordance with this Road Plan.

<u>Road</u>	<u>Station</u>	<u>Type</u>
N-3011A	0+00 to 10+40	Light Abandonment
N-3012A	0+00 to 4+70	Light Abandonment

1.1-4

If the purchaser desires a road location or design change, a revised road plan shall be submitted to the State for consideration.

1.1-9

On this plan quantities are minimum acceptable values. Additional quantities required by the State because of hidden conditions or Purchaser's choice of construction season or techniques shall be at the Purchaser's expense. Hidden conditions include, but are not limited to: solid subsurface rock, subsurface springs, saturated ground, and unstable soil.

SECTION 1.2 - GENERAL: CONSTRUCTION CONSTRAINTS

1.2-1

The reconstruction or pre-haul maintenance of any roads specified herein shall not be permitted between November 1 and May 1 unless authority to do so is granted, in writing, by the Contract Administrator.

<u>Road</u>	<u>Station</u>
N-3000A	0+00 to 27+20
N-3001	0+00 to 11+00
N-3010	0+00 to 17+20
N-3200	0+00 to 25+50
N-3250	0+00 to 7+90

1.2-2

Purchaser shall not use roads reconstructed or maintained under this Road Plan for hauling, other than timber cut on the right of way, without written approval from the Contract Administrator.

SECTION 1.2.1 - GENERAL: CONSTRUCTION CONSTRAINTS:  
CONSTRUCTION SEQUENCE

1.2.1-1

Pioneering shall not extend past construction that will be completed during the current construction season. Drainage shall be provided on all uncompleted construction as approved, in writing, by the Contract Administrator.

Clearing and grubbing shall be completed prior to starting excavation and embankment.

Culvert placement in live streams shall precede embankment where culverts are to be placed along natural ground. Temporary diversion culverts shall be provided when designed culverts are elevated above natural ground within embankments.

Culverts and rolling dips shall be installed in completed subgrade as construction progresses.

Subgrade, ditches, culvert and rolling dips installation shall be completed and are subject to written approval by the Contract Administrator prior to rock application.

SECTION 1.3 - GENERAL: HAULING CONSTRAINTS

1.3-1

On the following roads, rock hauling shall not be permitted between the dates listed unless authorized, in writing, by the Contract Administrator.

<u>Road</u>	<u>Closure Period</u>
N-3000	November 1 to May 1

1.3-2

On the following roads, timber haul shall not be permitted between the dates listed unless authorized, in writing, by the Contract Administrator.

<u>Road</u>	<u>Closure Period</u>
N-3000	November 1 to May 1
N-3000A	November 1 to May 1
N-3010	November 1 to May 1

SECTION 1.4 - GENERAL: SURVEYING/DESIGN/STAKING

1.4-1

The following roads shall be constructed in accordance with construction stakes.

<u>Road</u>	<u>Stations</u>
N-3250	0+00 to 2+00

SECTION 1.5 - GENERAL: ROAD MAINTENANCE

- 1.5-1 Maintenance on the following roads shall be performed in accordance with Forest Access Road Maintenance Specifications.

<u>Road</u>	<u>Stations</u>
N-3000A	0+00 to 27+20
N-3001	0+00 to 11+00
N-3010	0+00 to 17+20
N-3200	0+00 to 25+50
N-3250	0+00 to 7+90

- 1.5-2 Per Clause C-60, maintenance on the following roads shall be performed by designated maintainer. Designated maintainer shall be selected by the Contract Administrator.

<u>Road</u>	<u>Station</u>
N-3000	0+00 to 198+00

- 1.5-3 On the following roads, snowplowing shall not be permitted unless authorized, in writing, by the Contract Administrator.

<u>Road</u>	<u>Stations</u>
N-3000	0+00 to 198+00
N-3000A	0+00 to 27+20
N-3001	0+00 to 11+00
N-3010	0+00 to 17+20
N-3200	0+00 to 25+50
N-3250	0+00 to 7+90

- 1.5-4 At termination of haul final maintenance shall be performed on the following roads. At minimum, final maintenance shall consist of blading the road with a motor grader, removing berms, crowning or outsloping the road as specified in the Typical Section Sheet and/or Clause 6.1-1, reshaping rolling dips and/or water bars to specification, pulling ditches and cleaning culvert inlets and outlets. The finished road surface shall drain freely and shall be smooth, firm and free of chuckholes.

<u>Road</u>	<u>Stations</u>
N-3001	0+00 to 11+00
N-3200	0+00 to 25+50
N-3250	0+00 to 7+90

SECTION 2 - CLEARING

SECTION 2.1 - R/W TIMBER

- 2.1-1 Fell all vegetative material larger than 2 inches dbh or over 4 feet high between the marked right-of-way boundaries or if not marked in the field, between clearing limits specified on the Typical Section Sheet.

SECTION 3 - GRUBBING

SECTION 3.1- GRUBBING: GENERAL

3.1-1

All stumps shall be removed that fall between grubbing limits shown on the Typical Section Sheet. Those with undercut roots shall be removed.

3.1-2

Grubbing limits are defined as the entire area between the external limits shown on the Typical Section Sheet.

SECTION 4 - DEBRIS DISPOSAL AND REMOVAL

SECTION 4.1 - DEBRIS DISPOSAL AND REMOVAL: GENERAL

4.1-1

Right-of-way debris is defined as all non-merchantable vegetative material larger than one cubic foot in volume, within the grubbing limits.

SECTION 4.2 - DEBRIS DISPOSAL AND REMOVAL: PLACEMENT

4.2-1

On the following roads, right-of-way debris shall be scattered.

<u>Road</u>	<u>Stations</u>
N-3010	0+00 to 0+50
N-3250	0+00 to 2+50

4.2-2

Right-of-way debris shall not be placed against standing timber.

4.2-5

On the following roads, vegetative material including limbs up to 3 inches in diameter shall be cut and removed between the clearing limits posted. Vegetative material shall be cut as near flush with the ground as possible, but shall not extend more than 3 inches above the ground.

<u>Road</u>	<u>Stations</u>
N-3010	0+00 to 0+50
N-3250	0+00 to 2+50

SECTION 5 - EXCAVATION

SECTION 5.1 - EXCAVATION: GENERAL

5.1-1

Unless controlled by construction stakes or specific design sheets herein, roads shall be constructed in accordance with dimensions shown on the Typical Section Sheet.

5.1-2

Purchaser shall not bury merchantable material.

5.1-3

On the following roads, road grade and alignment shall conform to the State's marked location and drawings. Grade and alignment shall have smooth continuity without abrupt changes in direction. Maximum grades and minimum curve radii are as listed below.

<u>Road</u>	<u>Stations</u>	<u>Min. Rad</u>	<u>Max. Grade</u>	
			<u>Favorable</u>	<u>Adverse</u>
N-3250	0+00 to 2+50	60'	10	5

5.1-4

Except as designated on the curve widening list, extra widening on the inside of curves shall be as indicated below.

2 feet extra	80 to 100 foot radius curves.
4 feet extra	50 to 79 foot radius curves.

5.1-7

Roads shall be constructed or reconstructed to the dimensions shown on the Typical Section Sheet, within the tolerance listed below. Tolerance classes for each road are listed on the Typical Section Sheet.

<u>Tolerance Class</u>	<u>A</u>	<u>B</u>	<u>C</u>
Road Width (feet)	+1.5	+1.5	+2.0
Subgrade elevation (feet+/-)	0.5	1.0	2.0
Centerline alignment (feet lt./rt.)	1.0	1.5	3.0

5.1-8

Excavation slopes shall be constructed no steeper than shown on the following table:

<u>Material Type</u>	<u>Excavation Slope Ratio</u>
Common Earth (on side slopes of 55%).....	1:1
Common Earth (55% to 70% sideslopes).....	¾:1
Common Earth (on slopes over 70%).....	½:1
Fractured or loose rock.....	½:1
Hardpan or Solid rock.....	¼:1

5.1-9

Excavation and embankment slopes shall be constructed to a uniform line and left rough for easier revegetation.

5.1-10

Except as construction staked or designed. Embankments shall be widened as follows:

<u>Height at Centerline</u>	<u>Subgrade Widening</u>
Less than 6 feet.....	2 feet
6 feet or over.....	4 feet

5.1-11

Embankment slopes shall be constructed no steeper than shown on the following table:

<u>Material Type</u>	<u>Embankment Slope Ratio</u>
Common Earth and rounded gravel	1-1/2:1
Angular rock	1-1/4:1
Sandy soil	2:1

5.1-12

Organic material shall be excluded from embankment.



5.1-19

Select borrow shall be used at the following locations:

<u>Road</u>	<u>Stations</u>	<u>Source</u>
N-3250	0+00 to 2+50	Cut slope 1+00 to 2+50

5.1-21

Waste material shall not be deposited within 100 feet of a culvert installation.

SECTION 5.3 - EXCAVATION: COMPACTION

5.3-1

All embankment and waste material shall be compacted. The minimum acceptable compaction is achieved by placing embankments in 2 foot or shallower lifts and routing excavation equipment over the entire width of the lifts. Sidehill embankments too narrow to accommodate excavation equipment may be placed by end dumping or side casting until sufficiently wide to support the equipment.

SECTION 5.4 - EXCAVATION: SEDIMENTATION

5.4-1

Sediment bearing runoff shall not be permitted to enter into streams.

5.4-3

On the following roads, purchaser shall seed and fertilize cut and fill slopes. Application rate shall be 35 lbs. seed per acre and 60 lbs. fertilizer per acre. Seed and fertilizer shall be provided by the purchaser. Seed mix shall be: intermediate wheatgrass 15 lbs., smooth brome 10 lbs., and hard fescue 10 lbs. Seed shall be certified. Fertilizer shall be 16-16-16 or other fertilizer as approved, in writing, by the contract administrator. Seed and fertilizer shall be applied between October 1 and November 15, unless otherwise approved by the Contract Administrator, in writing.

<u>Road</u>	<u>Stations</u>	<u>Estimated Quantity*</u>
N-3250	0+00 to 2+50	4 lbs seed / 6 lbs fertilizer

\*Quantities are estimate only. Actual quantities may vary and are the responsibility of the purchaser.

SECTION 5.5 - EXCAVATION: SUBGRADE COMPACTION

5.5-1

Finished subgrade shall be shaped as specified in Clause 6.1-1 and as shown on the Typical Section Sheet. Surface shall be graded and compacted to a uniform, firm, rut-free surface to ensure runoff in an even, unconcentrated manner.

SECTION 6 - DRAINAGE

SECTION 6.1 - DRAINAGE: SURFACE DRAINAGE

6.1-1

On the following roads, surfaces shall be shaped to augment the escape of surface runoff.

<u>Road</u>	<u>Stations</u>	<u>Shape of Road Surface</u>
N-3000A	0+00 to 27+20	Crowned 4 inches at centerline
N-3001	0+00 to 11+00	Crowned 4 inches at centerline*
N-3010	0+00 to 17+20	Insloped 4 inches in 10 feet
N-3200	0+00 to 25+50	Crowned 4 inches at centerline*
N-3250	0+00 to 2+50	Outsloped 4 inches in 10 feet
N-3250	2+50 to 7+90	Crowned 4 inches at centerline*

\*Falls under Purchaser Maintenance

6.1-2

Berms shall be removed from road shoulders to permit escape of runoff.

SECTION 6.2 - DRAINAGE: CULVERTS/DOWNSPOUTS/FLUMES

SECTION 6.2.1 - DRAINAGE: CULVERTS/DOWNSPOUTS/FLUMES: GENERAL

6.2.1-1

Purchaser shall furnish, install and maintain galvanized AASHTO specification No. M36 or corrugated polyethylene tubing AASHTO classification "Type S" and AASHTO designation No. M294 culverts as designated on the Culvert List.

6.2.1-2

Annular corrugated bands and culvert ends shall be used on metal culverts. On culverts 24 inches in diameter and smaller, bands shall have a minimum width of 12 inches; on culverts over 24 inches in diameter, bands shall have a minimum width of 24 inches. Manufacturers approved connectors shall be used for corrugated polyethylene tubing.

SECTION 6.2.2 - DRAINAGE: CULVERTS/DOWNSPOUTS/FLUMES: INSTALLATION

6.2.2-1

Culvert, downspout, flume and energy dissipater installation shall be in accordance with Culvert and Drainage Specification Detail and the National Corrugated Metal Pipe Association Installation Manual for Corrugated Steel Drainage Structures. Polyethylene tubing shall be installed in a manner consistent with the manufacturer's recommendations.

6.2.2-2

At the following location, culverts that are to be replaced or removed from the roadbed shall be removed from State land prior to termination of this contract. Culverts shall be disposed in a manner consistent with all laws and regulations.

<u>Road</u>	<u>Stations</u>
N-3250	0+70

6.2.2-3

Cross drains and surface culverts on road grades in excess of 3% shall be skewed at least 30 degrees from perpendicular to the road centerline, except that cross drain culverts at the low points of dips in road shall not be skewed.

6.2.2-4  
Cross drain culverts shall be installed at a slope steeper than the incoming ditch grade, but not less than 3% nor more than 10%.

6.2.2-5  
Installations of culverts 30 inches in diameter and over shall be subject to written approval by the Contract Administrator prior to making backfill.

6.2.2-6  
On the following road, installation of culvert shall be in accordance with Hydraulics Project Permit issued by Washington Department of Fish and Wildlife, and the Culvert Installation Detail.

<u>Road</u>	<u>Stations</u>
N-3250	0+70

6.2.2-7  
On the following roads, drainage structure outfalls shall not terminate directly on unprotected soil that will erode. Energy dissipaters shall be installed to prevent erosion. Energy dissipaters shall consist of hand placed rocks weighing at least 15 pounds. Rock shall extend a minimum of 1 foot to each side of the culvert at the outlet and 2 feet beyond the outlet.

<u>Road</u>	<u>Stations</u>
N-3250	0+00 to 2+50

SECTION 6.3 - DRAINAGE: DITCHES

6.3-6  
On the following roads, the Purchaser shall pull the ditches and clean the inlet and outlet of all culverts. Work shall be completed prior to grading, and compaction of the existing surface, and timber haul and shall be done in accordance with the Typical Section Sheet and Culvert and Drainage Specification Details.

<u>Road</u>	<u>Stations</u>
N-3000A	0+00 to 27+20
N-3200	0+00 to 25+50
N-3250	2+50 to 7+90

SECTION 6.4 - DRAINAGE: CATCHBASINS

6.4-1  
On the following road, catch basins shall be constructed to resist erosion. Minimum dimensions are: five feet wide and six feet long with backslopes consistent with Clause 5.1-8: Excavation-Slopes.

<u>Road</u>	<u>Station</u>
N-3250	2+50

SECTION 6.5 - DRAINAGE: HEADWALLS

- 6.5-1 Hand placed rock shall be installed at the inlet of all installed culverts. Rocks shall be mortared in place. Rocks shall weigh at least 15 lbs. Rock shall extend a minimum of 1 foot above the top of the inlet and 2 feet on each side. No other method of armoring may be used without prior written approval of the Contract Administrator. All headwall work shall be completed prior to timber haul.

SECTION 6.6 - DRAINAGE: DRIVABLE WATER BARS

- 6.6-1 On the following roads, drivable water bars shall be constructed in accordance with the Drivable Water Bar Detail sheet at locations as specified on the Drivable Water Bar List or at locations specified by the Contract Administrator. **DRIVABLE WATER BARS SHALL BE INSTALLED AT THE TIME OF CONSTRUCTION AND SHALL BE CONTINUOUSLY MAINTAINED IN AN OPERABLE CONDITION.** Drivable water bars shall be installed with a crawler tractor. Use of other equipment shall not be permitted without prior written approval of the Contract Administrator.

<u>Road</u>	<u>Stations</u>
N-3010	0+00 to 17+20

SECTION 6.7 - DRAINAGE: UNDRIVABLE WATER BARS

- 6.7-1 On the following road, existing undrivable water bars shall be filled in prior to timber haul. At termination of haul, undrivable water bars shall be reconstructed in accordance with the Undrivable Water Bar Detail sheet in original locations.

<u>Road</u>	<u>Stations</u>
N-3000A	0+00 to 27+20

SECTION 7 - ROCK

SECTION 7.1 - ROCK SOURCE

- 7.1-1 Pit run rock under this contract may be obtained from an existing site on state land in the NE 1/4 of the NE 1/4 of Section 24 Township 19 North Range 19 East at no charge to the purchaser. Development and use shall be in accordance with a written "Site Development and Reclamation Plan" prepared by the Purchaser and subject to written approval by the Contract Administrator prior to any site development or use. Site operations shall be conducted as directed by the Contract Administrator and in accordance with the approved development plan. Upon completion of operations, the site shall be left in the condition specified in the plans and subject to written approval by the Contract Administrator. Request of use of material from any other source shall be submitted, in writing, to the Southeast Region Engineer or their designee, for consideration.

SECTION 7.2 - ROCK: MANUFACTURE

SECTION 7.2.2 - ROCK: MANUFACTURE: MEASUREMENT

7.2.2-1 Measurement of the pit run rock shall be on a cubic-yard-truck measure basis. The Contract Administrator shall measure each truck prior to rock hauling. The Contract Administrator shall periodically require that a load be flattened off and its volume calculated. An average of such volumes for each truck shall be used to tally the volume hauled. The purchaser shall provide and maintain load tally sheets for each truck and shall give them to the contract administrator.

SECTION 7.4.2 - ROCK: APPLICATION: PLACEMENT

7.4.2-1 Apply at least the minimum required rock quantity as shown on the Typical Section Sheet.

7.4.2-2 Subgrade shall be subject to approval, in writing, by the Contract Administrator prior to application of rock.

7.4.2-8 Each lift of rock shall be shaped as specified in Clause 6.1-1 and shall be uniform, firm, and rut-free to ensure surface runoff in an even, unconcentrated manner.

SECTION 7.4.3 - ROCK: APPLICATION: COMPACTION

7.4.3-2 On the following roads, rock shall be spread and shaped with a motor grader or crawler tractor concurrently with rock hauling operations.

<u>Road</u>	<u>Stations</u>
N-3010	0+50 to 1+40
N-3250	0+00 to 2+50

SECTION 9 - ROAD AND LANDING CLOSURES/DEACTIVATION

SECTION 9.1 - ROAD AND LANDING DEACTIVATION: ROAD DEACTIVATION

9.1-1 On the following roads, deactivation shall consist of:

- insloping the surface at a minimum of 4 percent;
- constructing drivable water bars in conformance with the attached "Drivable Water Bar Detail" at a spacing which will produce a vertical drop of no more than 30 feet between water bars and with a maximum spacing of 300 feet;
- skewing water bars at least 30 degrees from perpendicular on roads in excess of 3 percent grade;

<u>Road</u>	<u>Stations</u>
N-3010	0+00 to 17+20

9.1-3

On the following roads, deactivation shall consist of:  
Revegetation of landings, cut slopes, road surface and fill slopes. Application rate shall be 35 lbs of seed mix per acre and 60 lbs. of fertilizer per acre. Seed mix shall be: intermediate wheatgrass 10 lbs. per acre, smooth brome 10 lbs. per acre, hard fescue 10 lbs. per acre. Seed shall be certified. Fertilizer shall be 16-16-16 or other fertilizer as approved in writing by the Contract Administrator. Seed and fertilizer shall be applied between October 1 and November 15.

<u>Road</u>	<u>Stations</u>	<u>Estimated Quantity*</u>
N-3010	0+00 to 17+20	20 lbs seed / 34 lbs fertilizer

\*Quantities are estimate only. Actual quantities may vary and are the responsibility of the purchaser.

9.1-3A

On the following roads, deactivation shall consist of:  
Revegetation of landings. Application rate shall be 35 lbs of seed mix per acre and 60 lbs. of fertilizer per acre. Seed mix shall be: intermediate wheatgrass 10 lbs. per acre, smooth brome 10 lbs. per acre, hard fescue 10 lbs. per acre. Seed shall be certified. Fertilizer shall be 16-16-16 or other fertilizer as approved in writing by the contract administrator. Seed and fertilizer shall be applied between October 1 and November 15.

<u>Road</u>	<u>Stations</u>	<u>Estimated Quantity*</u>
N-3001	0+00 to 11+00	10 lbs seed / 17 lbs fertilizer
N-3200	0+00 to 25+50	20 lbs seed / 34 lbs fertilizer
N-3250	0+00 to 7+90	10 lbs seed / 17 lbs fertilizer

\*Quantities are estimate only. Actual quantities may vary and are the responsibility of the purchaser.

SECTION 10 - ROAD AND LANDING ABANDONMENT

10.1-1

The following roads shall be abandoned by the Purchaser prior to the termination of this contract.

<u>Road</u>	<u>Stations</u>	<u>Type</u>
N-3000A	0+00 to 27+20	Medium
N-3011A	0+00 to 10+40	Light
N-3012A	0+00 to 4+70	Light

10.1-1A

Light Abandonment shall consist of:

- ripping the surface to a minimum depth of 10 inches;
- scattering of slash on road surface at locations as directed by the Contract Administrator;
- constructing undrivable water bars in conformance with the attached Undrivable Water Bar Detail at a maximum spacing which will produce a vertical drop of no more than 10 feet between water bars or between natural drainage paths and with a maximum spacing of 100 feet, or as marked in the field;
- skewing water bars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3% grade;
- grass seeding concurrently with abandonment and in accordance with Clause: 10.1-2.

10.1-1B

Medium Abandonment shall consist of:

- filling in of ditches;
- removal of existing culverts. Culvert shall be the property of the purchaser and shall be transported from the sale area following removal. Culverts shall be disposed of in a manner consistent with all laws and regulations.
- ripping the surface to a minimum depth of 10 inches, except where road edge is within 50 feet of the stream;
- outsloping the surface at a minimum of 30%;
- constructing undrivable water bars, as directed by Contract Administrator, in conformance with the attached Undrivable Water Bar Detail at locations designated by the Contract Administrator;
- skewing water bars at least 30 degrees from perpendicular to the road centerline on roads in excess of 3% grade;
- construct an "I" barrier in accordance with the "I Barrier" detail sheet at the marked location;
- grass seeding concurrently with abandonment and in accordance with Clause: 10.1-2;
- covering, concurrently with abandonment, all exposed soils surrounding the culvert removals, with a 2 inch deep layer of straw.

10.1-2

On the following roads, abandonment shall consist of:

Revegetation of landings, cut slopes, road surface and fill slopes. Application rate shall be 35 lbs of seed mix per acre and 60 lbs. of fertilizer per acre. Seed mix shall be: intermediate wheat grass 10 lbs. per acre, smooth brome 10 lbs. per acre, hard fescue 10 lbs. per acre. Seed shall be certified. Fertilizer shall be 16-16-16 or other fertilizer as approved in writing by the contract administrator. Seed and fertilizer shall be applied between October 1 and November 15.

<u>Road</u>	<u>Stations</u>	<u>Estimated Quantity*</u>
N-3000A	7+00 to 27+20	33 lbs seed / 56 lbs fertilizer
N-3011	0+00 to 10+40	10 lbs seed / 18 lbs fertilizer
N-3012	0+00 to 4+70	5 lbs seed / 8 lbs fertilizer

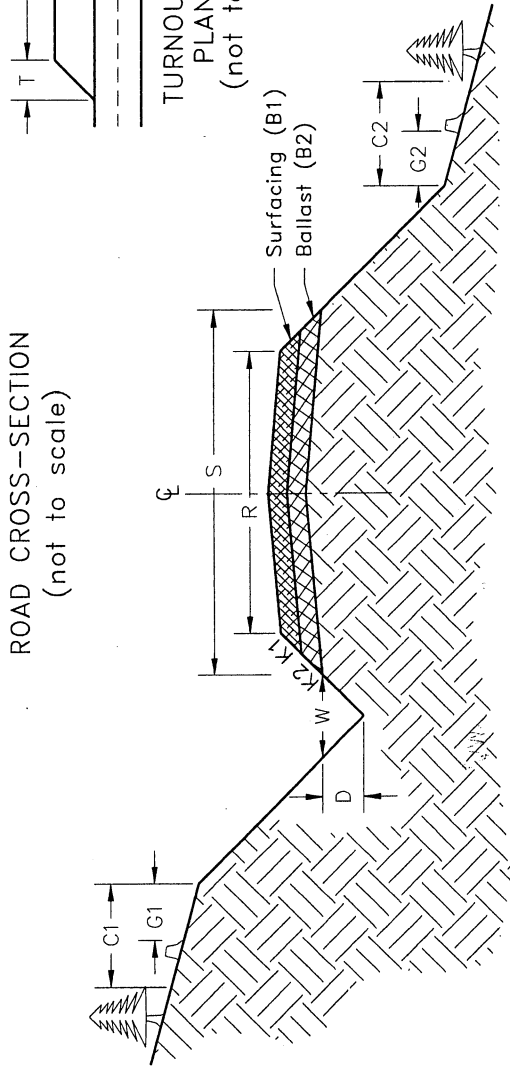
\*Quantities are estimate only. Actual quantities may vary and are the responsibility of the purchaser.





ROCK LIST

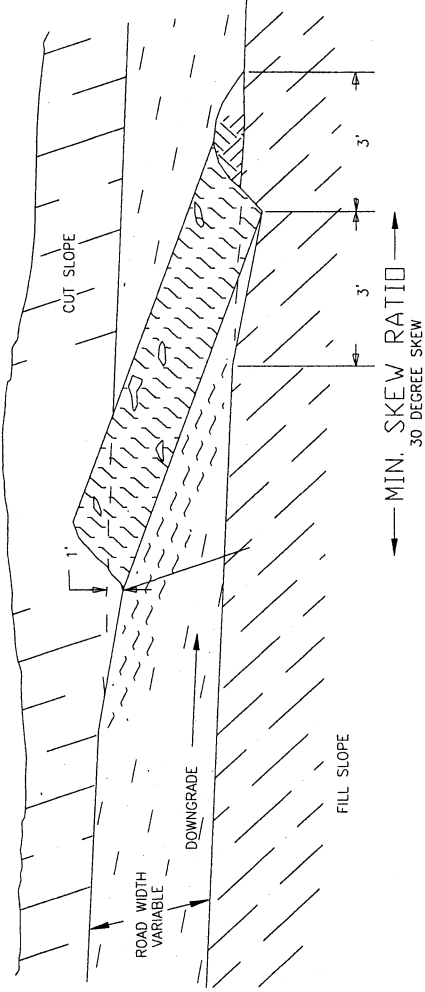
ROAD CROSS-SECTION  
(not to scale)



Road Number	From Station	To Station	Rock Slope	Compacted Rock Depth	C.Y./ Station	# of Stations	C.Y. Subtotal	Rock Source	Turnout		
									Length	Width	Taper
									L	H	T
N-3010	0+50	1+40	1.5:1	6"	30	1	30	N S/L S24 T19N R19E ON N-3000 ROAD			
N-3250	0+00	2+50	1.5:1	6"	30	2.5	75	N S/L S24 T19N R19E ON N-3000 ROAD			

BALLAST TOTAL \_105\_ Cubic Yards

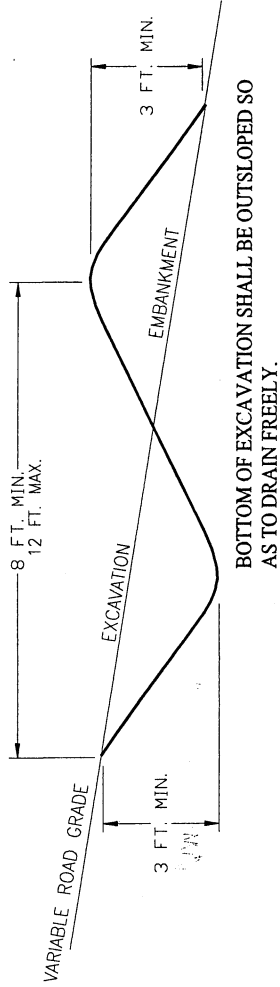
DRIVABLE WATER BAR DETAIL



NOTES

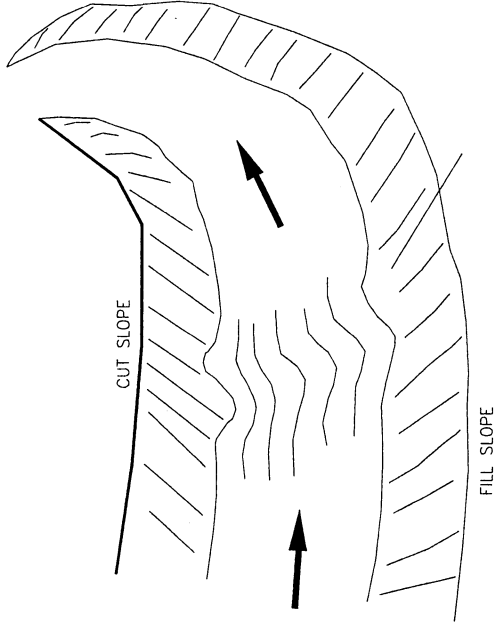
1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
2. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS.

# UNDRIVABLE WATER BAR DETAIL



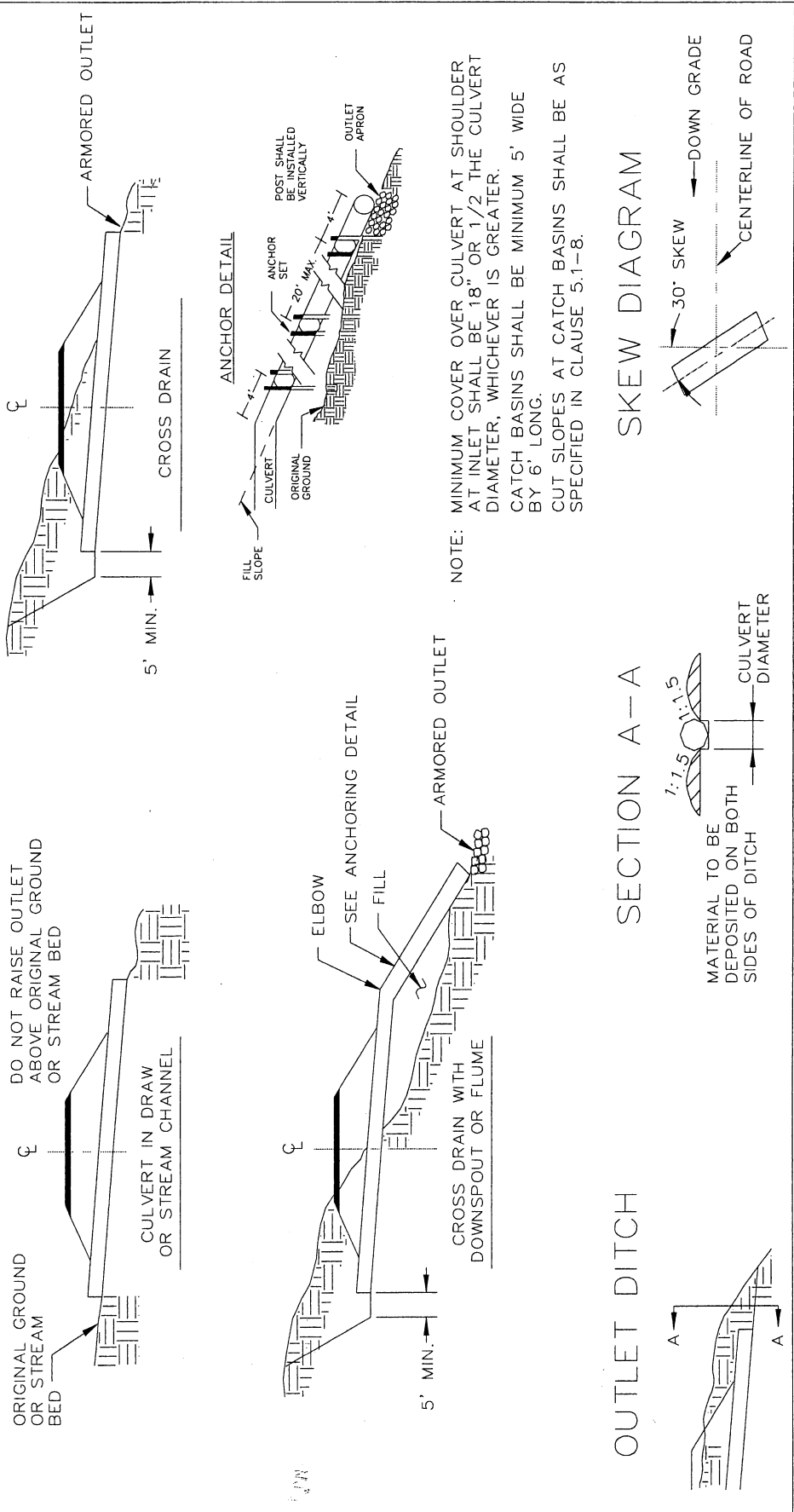
PROFILE VIEW

NOTE: EMBANKMENT SIDE OF UNDRIVABLE WATER BAR SHALL BE PLACED IN ON SIDE VEHICLE TRAFFIC WILL BE COMING FROM.



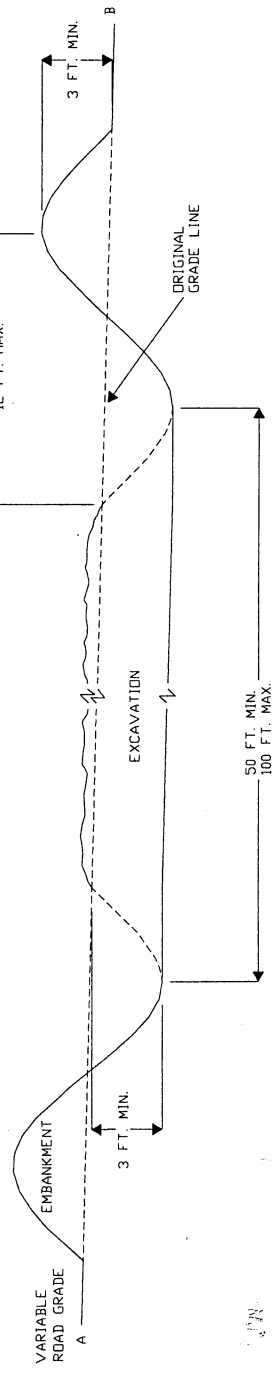
METHOD OF INSTALLATION

# CULVERT AND DRAINAGE SPECIFICATION DETAIL

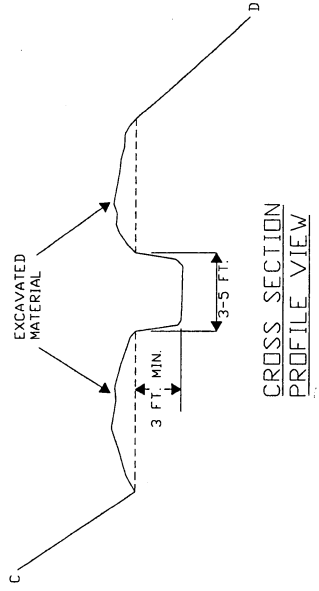
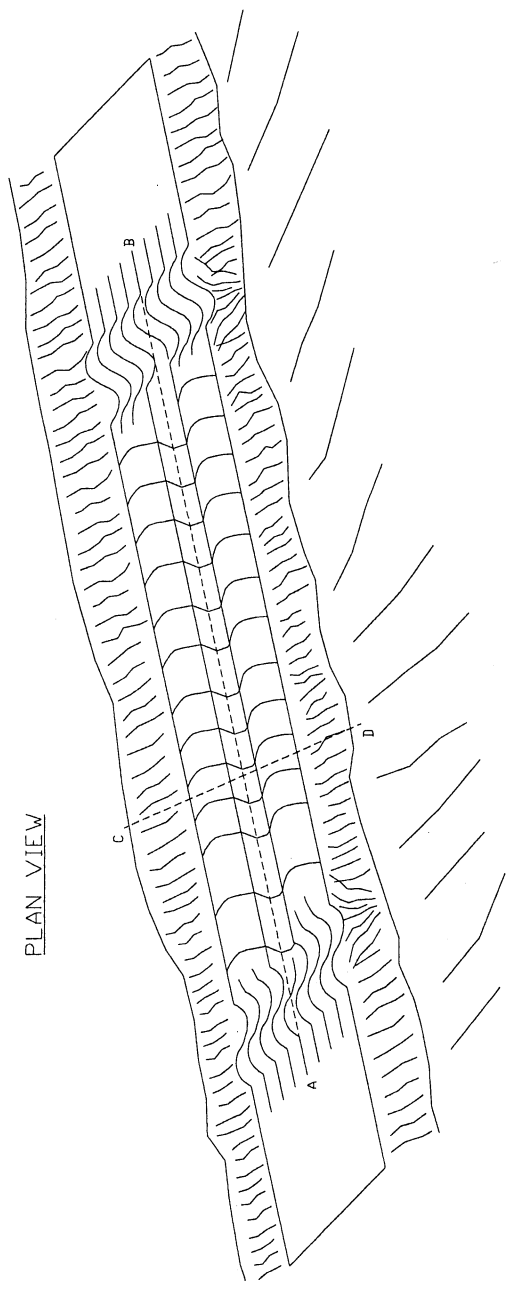


# "I" BARRIER DETAIL

PROFILE VIEW



PLAN VIEW



CULVERT LIST

<u>Road</u>	<u>L-Station</u>	<u>Diameter</u>	<u>Gauge</u>	<u>Length</u>	<u>Inlet</u>	<u>Outlet</u>	<u>Remarks</u>
N-3250	0+70	60"	12	54'	Headwall of Hand Placed Rock – Mortared in Place	Headwall of Hand Placed Rock – Mortared in Place, and Energy Dissipater	Replace existing culvert
N-3250	2+50	18"	16	30'	Headwall of Hand Placed Rock– Mortared in Place	Energy Dissipater	New cross drain

DRIVABLE WATER BAR LIST

<u>Road</u>	<u>L-Station</u>	<u>Remarks</u>
N-3010	1+90	CONSTRUCT AS PER DETAIL
N-3010	5+05	MAINTAIN AS PER DETAIL
N-3010	7+35	CONSTRUCT AS PER DETAIL
N-3010	13+50	RECONSTRUCT AS PER DETAIL

UNDRIVABLE WATER BAR LIST

<u>Road</u>	<u>L-Station</u>	<u>Remarks</u>
N-3000A	26+70	CONSTRUCT AS PER DETAIL CONCURRENT WITH ABANDONMENT
N-3000A	26+00	CONSTRUCT AS PER DETAIL CONCURRENT WITH ABANDONMENT
N-3000A	8+00 to 25+00	AS PER DETAIL AS DIRECTED BY CONTRACT ADMINISTRATOR
N-3000A	8+00 to 25+00	AS PER DETAIL AS DIRECTED BY CONTRACT ADMINISTRATOR
N-3011A	1+00	CONSTRUCT AS PER DETAIL CONCURRENT WITH ABANDONMENT
N-3011A	4+45	CONSTRUCT AS PER DETAIL CONCURRENT WITH ABANDONMENT
N-3012A	0+00 to 4+70	AS PER DETAIL AS DIRECTED BY CONTRACT ADMINISTRATOR
N-3012A	0+00 to 4+70	AS PER DETAIL AS DIRECTED BY CONTRACT ADMINISTRATOR

STATE OF WASHINGTON  
DEPARTMENT OF NATURAL RESOURCES

FOREST ACCESS ROAD  
MAINTENANCE SPECIFICATIONS

A. Cuts and Fills

1. Maintain slope lines as constructed. Remove slides from the ditches and roadway. Replace fills to 1 1/2:1 slopes with selected material or as directed. Remove overhanging material from the cut slopes.
2. Material from slides or other sources requiring removal shall not be deposited in streams or at locations where it will erode into streams or water courses.
3. Undesirable slide materials and debris shall not be mixed into the surface material.

B. Surface

1. Grade and shape the road surface, turnouts, and shoulders to the original crown, inslope or outslope as directed to provide suitable traveled surface and surface water runoff in an even, unconcentrated manner.
2. Blading must not undercut the backslope at the bottom of the ditchline or cut into geotextile fabric on the road.
3. If required in writing by the SE Region Engineer, water shall be applied as necessary to abate dust.
4. Desirable surface material shall not be bladed off the roadway.
5. Replace surface material lost or worn away.
6. Remove berms except as directed by the State.
7. Barrel spread soft spots to prevent degradation of geotextile.

C. Drainage

1. Keep ditches and drainage channels at outlets and inlets of culverts clear of obstructions and functioning as intended.
2. Inspect and clean culverts at least monthly, with additional inspections during storms and periods of high runoff. This must be done even during periods of inactivity.
3. Add stable material at the outlet end of the cross drain culvert as needed to stabilize the soil.
4. Headwalls: maintain to the road shoulder level with material that will resist erosion.
5. Prevent sediment bearing surface runoff from entering live streams.

D. Structures

Repair bridges, culverts, cattle guards, fences, and other road structures to the condition required by the construction specifications.

E. End of Season

Do maintenance work to minimize damage from the elements such as blading to insure correct runoff, ditch, and culvert cleaning and water bars.

F. Debris

Remove fallen timber, limbs, and stumps from the slopes or roadway.